

THE SEVERE WINTER OF 1925-26 IN EUROPE

[Translated and slightly condensed from two notes by Charles Rabot in *La Nature*, January 18, 1926, Supplement, p. 17]

Floods in Europe.—The opening of December was marked in France and in northern and central Europe by very severe cold, with heavy snowfall, followed in France and central Europe by melting and heavy rains. Serious floods resulted, at certain points assuming truly catastrophic proportions. The regions most affected were the lowland of the Meuse, the region of the Lys, and the Escaut, and the valleys of the Oise and the Aisne. The rise in the Meuse was appreciably higher than that of 1910; the industrial towns in its valley, between Sedan and Givet, were severely affected, especially Givet, where the bursting of a dike caused the sudden flooding of fully a quarter of the town. In Belgium, the towns of Dinant, Namur, and Liege were flooded. The inundation was equally heavy in the valley of the Sambre, in the Charleroi Basin, and the Escaut Valley. The Oise rose higher than in 1910, and did particular damage to the villages of Compiègne and Creil. The Therain, an affluent of the Oise, flooded Beauvais and the surrounding regions. The Aisne overwhelmed the low parts of Reims and the city of Soissons. Holland was still more affected, on account of the simultaneous rise of the Rhine and the Meuse, which caused bursting of dikes and the inundation of vast extents of country.

In Normandy, the village of Caen was hard hit by the rise of the Orne coincident with the backing up of a high tide. The Saone likewise rose abnormally. Severe floods are reported also from the Rhine Valley and north Germany.

The winter in Scandinavia.—In north Europe the cold appeared very early this season and with abnormal intensity. From Norway also come reports of a particularly severe winter.

In Sweden on the 20th of October a remarkable drop in temperature was observed, when -24° C. was registered.

At Oslo, in southern Norway, November opened with very heavy snowfall, which, continuing during several days, interrupted communication in most districts. Throughout the month temperatures remained notably below normal, and since the beginning of December this departure has been increased. On December 1 at 8 a. m. in Oslo, -16.8° C. was recorded; at Roros -28° C.; in much of the country about the Norwegian capital veritable polar temperatures occurred, reaching as low as -40° C.

Likewise in Denmark temperatures were abnormally low; at 8 a. m. on December 1, values below freezing were experienced over the whole country. In Jutland the thermometer went to -15° C. On the 4th, several fjords on the east coast of that peninsula were already clogged with thick ice. In short, since the middle of the autumn a régime of cold has dominated Scandinavia and has persisted with abnormal vigor, recalling that of the hard winter of 1879.—*B. M. V.*

OBSERVED SUNSPOT REALTIVE NUMBERS—WOLFER

The table below contains the final and revised relative sunspot numbers for the years 1920-1924, according to Wolfer, who has kindly supplied them to the journal *Terrestrial Magnetism and Atmospheric Electricity*, in which they appear in the June, 1925, issue.

These numbers are to replace the provisional numbers published in the *MONTHLY WEATHER REVIEW* for January, 1923, page 29.—*A. J. H.*

Observed sunspot relative numbers—Wolfer

	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1920.....	51.1	53.9	70.2	14.8	33.3	38.7	27.5	19.2	36.3	49.6	27.2	29.9	37.6
1921.....	31.5	28.3	26.7	32.4	22.2	33.7	41.9	22.8	17.9	18.2	17.8	20.3	26.1
1922.....	11.8	26.4	54.7	11.0	8.0	5.8	10.9	6.5	4.7	6.2	7.4	17.5	14.2
1923.....	4.5	1.5	3.3	6.1	3.2	9.1	3.5	0.5	13.2	11.6	10.1	2.8	5.8
1924.....	0.5	5.1	1.8	11.3	20.8	24.0	28.1	19.3	25.1	25.6	22.5	16.5	16.7
1925.....	3.2	21.8	18.7	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

DETERMINING THE TIME OF MOONRISE AND MOONSET

Referring to the article entitled "A Short Method of Determining the Time of Moonrise and Moonset" in the October, 1925, issue of the *MONTHLY WEATHER REVIEW*, it is thought that the following method may prove easier to understand than the method described in the article. It has been in use since 1918 at the Macon, Ga., office of the Weather Bureau, and found simple in practice.

First, Auxiliary Table A, Latitude Correction, was copied on the upper end of a card. Next, a table called "B" was made just below Auxiliary Table A. This new table is the result of adding Auxiliary Table B to the correction for local mean solar time. For example, longitude correction for a difference of 20 minutes according to Auxiliary Table B is $+5$. This was changed to $+40$ by adding the difference ($+35$ min.) between local mean solar time and seventy-fifth meridian time. In the same way all the corrections in Auxiliary Table B were changed.

When the two tables are used the moonrise or moonset can be found in about one minute.

Reasoning used.—Work from latitude 35° , Macon latitude $32^{\circ} 50'$.

Moonrise	Lat. 30°	Lat. 35°	Difference in minutes	Difference by Table A	Lat. $35^{\circ} 50'$	Correction Table B	Result
1926							
Jan. 1.....	19 25	19 15	10	4	19 19	+48	20:07
Jan. 2.....	20 18	20 09	9	4	20 13	-----	-----

Difference between 2 days=54.

54 according to Table B gives +48.

Result 20:07, is 8:07 p. m., January 1, 1926.

What actually appears on paper.—

Jan. 1 19 19+48 20:07
2 20 13

54
Jan. 2 20 13+48 21:01
3 21 07

54
Jan. 3 21 07+48 21:55
4 22 01

54

Etc.—

Harry Raynes.

Mr. Raynes's method of computing moonrise and moonset is undoubtedly correct and clear-cut. There is no criticism except that "what actually appears on

paper" is too much for speed. By count, he is listing 18 figures per date in his computation. If he will set down the figures by the "column d" method, and use the same card he is now using, he will find that never more than 8 figures per date are required. He will also find that the entire month of 60 computations requires not over 30 minutes to complete.

It may be mentioned incidentally that the "Correction Card" method, noted and illustrated in the final paragraph of the October article, while not quite so easy to learn, has a speed of 60 computations in 15 minutes.—*F. N. Hibbard.*

METEOROLOGICAL SUMMARY FOR BRAZIL, DECEMBER, 1925

By J. DE SAMPAIO FERRAZ

The Meteorological Office, Rio de Janeiro

Circulation gauged by the frequency of anticyclones was more active this month. Five of these systems visited the country with tracks as irregular as in the previous month but a little less to the south.

The tracks were abnormal on account of the occasional expansion of the continental low and sudden passage of the high latitude depressions. In Brazilian charts we very frequently see the areas of high pressure deformed, checked, or thrown aside of their usual paths by the depressions. November and December highs were victims of such action. In the latter month the continental low was particularly active from the 17th to the 23d and from the 27th to the 31st.

Generally rainfall was irregular throughout the country, but much more plentiful in the south and center than in the north.

The weather in Rio de Janeiro was warm and fair, with unusual excess of sunshine. On the 24th the city was struck by a high wind from SSE. with stiff gusts of 22 meters per second.

Crops generally did well, but cane in the north still suffering from lack of rain.

As this note is being released, 21st of January, rain continues very scarce in the northeast. Precipitations in normal years should begin in January in this region. If they continue absent, a serious drought may set in. The general aspect of daily charts indicate still a southern run of anticyclones, which is an ominous sign.

BIBLIOGRAPHY

C. FITZHUGH TALMAN, in Charge of Library

RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies.

Alfani, Guido.

Lecture pireliometriche eseguite nel periodo giugno 1915-dicembre 1916. Firenze. 1917. 43 p. plates. 24 cm. (Pubb. Osserv. Ximeniano dei PP. Scolopi, Firenze. Num. 123.)

Lecture pireliometriche eseguite nel periodo gennaio-dicembre 1917. Firenze. 1917. 51 p. plates. 24 cm. (Pubb. Osserv. Ximeniano dei PP. Scolopi, Firenze. Num. 125.)

Les observations pyrhiométriques au moyen du pyrhiomètre enregistreur de Gorczynski, et du pyrhiomètre de Ångström. (Juin-juillet-août 1925.) Firenze. 1925. 20 p. plates. 24½ cm. (Pubb. Osserv. Ximeniano dei PP. Scolopi, Firenze. Num. 132.)

L'Observatoire Ximénien et son matériel scientifique. Les pyrhiomètres à compensation électrique de Ångström et enregistreur de Gorczynski. Firenze. 1925. 11 p. plates. 24 cm. (Pubb. Osserv. Ximeniano dei PP. Scolopi, Firenze. Num. 130.)

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Snow removal. [2d ed. Washington. 1925.] 32 p. illus. 30½ cm.

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Sixth annual meeting. Transactions. April 30 and May 1, 1925. Washington. 1925. 80 p. figs. 25 cm. (National research council. Bulletin. v. 10, pt. 3, July, 1925. No. 53.)

Angenheister, G.

Die Laufzeit des Schalls für grosse Entfernungen. p. 314-327. figs. 23 cm. (Zeitsch. f. Geophys., Jahrg. 1, H. 7.)

Boerema, J.

Regenval in Nederlandsch-Indië (Rainfall in the Netherlands Indies). Deel 2. (vol. 2.) Kaarten van den gemiddelden jaarlijkschen en maandelijkschen regenval op Java en Madoera, met een kaart der regenstations. (Maps of the mean yearly and monthly rainfall on Java and Madoera, with a map showing the position of the rainfall stations.) Weltevreden. 1925. maps. 40 cm. (K. Mag. en met. observ. Batavia. Verhand. No. 14.)

Coyecque, Marcel.

Notions de météorologie générale et nautique et éléments d'océanographie, à l'usage des officiers de marine et des candidats aux examens de la marine marchande. Paris. 1925. xviii, 383 p. figs. plates. maps. 23 cm.

Fickeler, Paul.

Der Altai, eine Physiogeographie. Gotha. 1925. viii, 202 p. plates (part fold). 28 cm. (Dr. A. Petermanns Mitteilungen. Ergänzungsheft Nr. 187.)

Ficker, H. v.

Temperaturgradienten bei Föhn. p. 526-532. figs. 25½ cm. (Sitzungsber. preuss. Akad. der Wissensch. 30. 19. Nov., 1925.)

Untersuchungen über Temperaturverteilung, Bewölkung und Niederschlag in einigen Gebieten des mittleren Asiens. p. 351-400. figs. 25 cm. (Geografiska annaler, H. 4, 1923.)

Fontseré, Eduard.

Atlas elemental de núvols publicat a utilitat dels observadors de la xarxa meteorològica Catalana. amb un pròleg del E. Delcambre. Barcelona. 1925. 50 p. illus. plates. 28½ cm. [Text in Catalanian and French. French translation by Ph. Wehrlé.]

Frostiana: or, A history of the River Thames in a frozen state; with an account of the late severe frost; and the wonderful effects of frost, snow, ice, and cold, in England, and in different parts of the world; interspersed with various amusing anecdotes. To which is added, the art of skating. London. 1814. xxii, 124 p. 19 cm.

Gessler, R.

Die Stärke der unmittelbaren Sonnenbestrahlung der Erde in ihrer Abhängigkeit von der Auslage unter den verschiedenen Breiten und zu den verschiedenen Jahreszeiten. Berlin. 1925. 27 p. tables. plate. 34½ cm. (Veröffentl. des preuss. met. Inst. Nr. 330. Abhandl. Bd. 8, Nr. 1.)

Haeser, Josef.

Der Hochwasserregen im bayerischen Donau- und Bodenseegebiet in den Tagen vom 29. bis 31. Juli 1924. München. 1925. 42 p. plates (part fold). 34½ cm. (Veröffentl. Bayer. Landesstelle für Gewässerkunde.)

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